

Appl. No. 10/519,604
Amendment and/or Response
Reply to Office Action of September 14, 2006

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Amendments to the Claims:

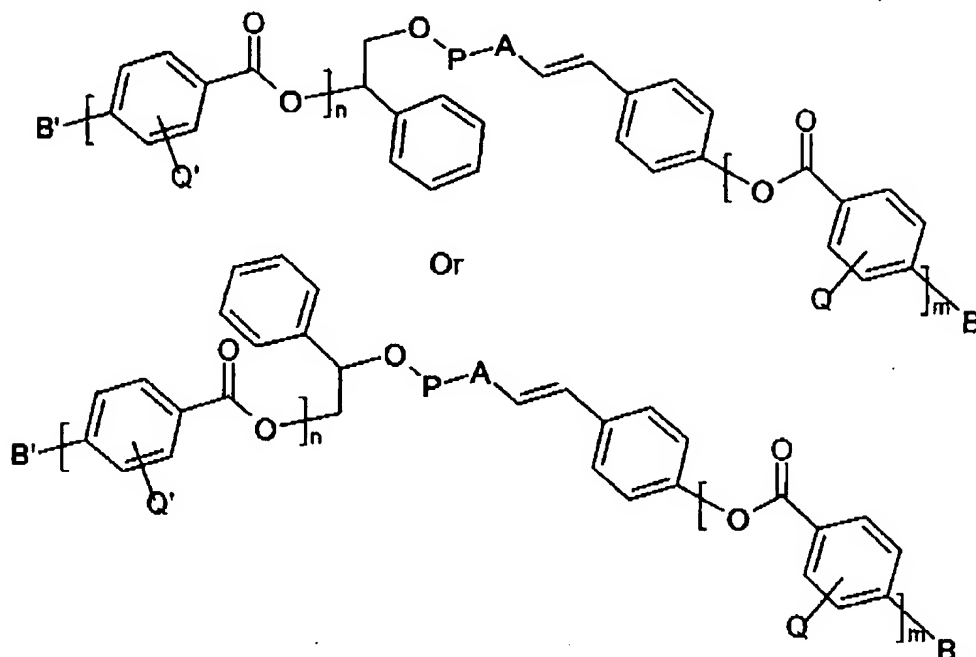
A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled) A phenylethanedil derivative, characterized in that the phenylethanedil derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanedil derivative.
2. (Canceled) The phenylethanedil derivative of claim 1 further having at least one polymerizable group.
3. (Canceled) The phenylethanedil derivative of claim 1 wherein the photo-convertible group is a photo-isomerizable group.
4. (Canceled) The phenylethanedil derivative of claim 3 wherein the photo-isomerizable group is an olephinic group.
5. (Canceled) The phenylethanedil derivative of claim 1 wherein the polymerizable group is a (meth)acrylate group.
6. (Currently Amended) The phenylethanedil derivatives of claim 1 A phenylethanedil derivative, characterized in that the phenylethanedil derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanedil derivative, wherein the phenylethanedil has the formula

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wherein

A stands for a bond or a p-phenylene group;

B and B' are independently $(O)_p-C_6H_{2o}-O-CO-CR'=CH_2$, o being 2-12, p being 0 or 1, and R' being H or CH₃;

P stands for a CH₂ or a C=O group;

Q and Q' are independently selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN;

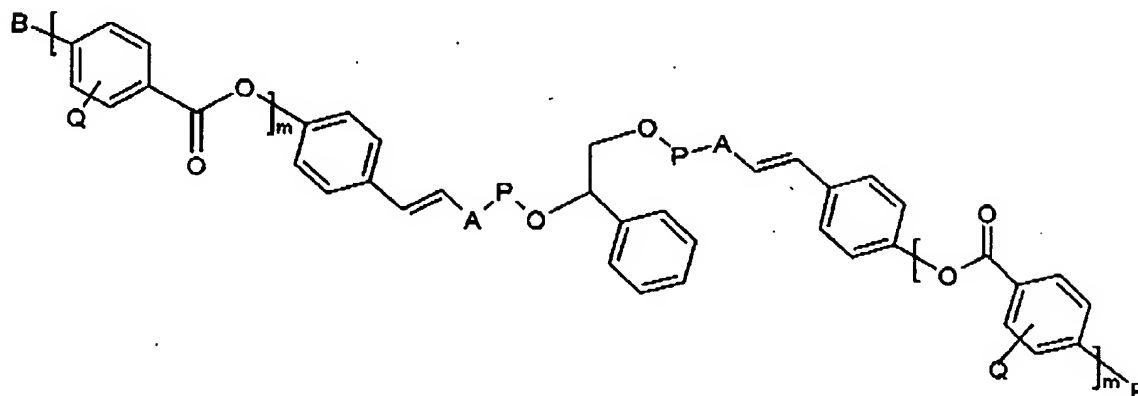
n is an integer from 1 to 3; and

m is an integer from 0 to 2.

7. (Currently Amended) ~~The phenylethanedil derivative of claim 4~~ A phenylethanedil derivative, characterized in that the phenylethanedil derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanedil derivative, wherein the phenylethanedil has the formula

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wherein

A stands for a bond or a p-phenylene group;

B is $(O)_p-C_6H_{2o}-O-CO-CR'=CH_2$, o being 2-12, p is 1, and R' being H or CH_3 ;

P stands for a CH_2 or a $C=O$ group;

Q is selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN; and

m is an integer from 0 to 2.

8. (Currently Amended) A method for the preparation of the phenylethanol derivative of claim 4 6 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanol; b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanol with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanol derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

9. (Currently Amended) A cholesteric composition comprising the phenylethanol derivative of claim 4 6.

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10. (Currently Amended) An optical element, ~~preferably an optical color filter,~~
comprising the phenylethanedil derivative of ~~any one of claims 1-7~~ claim 6.

11. (Currently Amended) ~~Use of~~ An optical color filter comprising the
phenylethanedil derivative of claim 6 ~~in optical elements.~~

12. (New) A method for the preparation of the phenylethanedil derivative of claim 7 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanedil, b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanedil with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanedil derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

13. (New) A cholesteric composition comprising the phenylethanedil derivative of claim 7.

14. (new) An optical element comprising the phenylethanedil derivative of claim 7.

15. (New) An optical color filter comprising the phenylethanedil derivative of claim 7.

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10. (Currently Amended) An optical element, ~~preferably an optical color filter,~~
comprising the phenylethanedol derivative of ~~any one of claims 1-7~~claim 6.

11. (Currently Amended) ~~Use of~~ An optical color filter comprising the
phenylethanedol derivative of claim 6 ~~in optical elements~~.

12. (New) A method for the preparation of the phenylethanedol derivative of claim 7 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanedol, b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanedol with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanedol derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

13. (New) A cholesteric composition comprising the phenylethanedol derivative of claim 7.

14. (new) An optical element comprising the phenylethanedol derivative of claim 7.

15. (New) An optical filter comprising the phenylethanedol derivative of claim 7.